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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

**TRANSMITTAL LETTER (Large Entity)**

Application Number: 09/761,774

Group Art Unit: 2618

Filed: January 18, 2001

Examiner Name: TRAN, Tuan A.

Applicant: CANNON *et al.*

Attorney Docket Number: 20-146

TITLE: BLUETOOTH CONNECTION QUALITY INDICATOR

Total Number of Pages in this Submission: 6

COMMISSIONER FOR PATENTS  
P.O. BOX 1450  
ALEXANDRIA, VA 22313-1450

SIR:

Transmitted herewith is:

A Reply Brief in the above-identified application (5 Pages).

The Commissioner is hereby authorized to charge any additional fees required under 37 C.F.R. 1.16 or any patent application processing fees under 37 C.F.R. 1.17 associated with this communication, or credit any over payment to **Deposit Account No. 50-0687 under Order No. 20-146.**

Respectfully submitted,

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Date: March 27, 2008

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CANNON – Appl. No. 09/761,774

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Serial No.: 09/761,774

Filed: January 18, 2001

Group Art Unit: 2618

Examiner: TRAN, Tuan A.

Atty Dkt No.: Cannon 115-104

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In re Patent Application of:

**CANNON et al.**

Title: **BLUETOOTH CONNECTION QUALITY INDICATOR**

March 27, 2008

**REPLY BRIEF**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

The Applicants submit the following Reply Brief in accordance with the requirements of 37 C.F.R. § 41.41.

**I. Claims 1-14 and 16-23 are not obvious under 35 U.S.C. § 103(a) over Croft in view of Gendel and further in view of Blasiak and Lebensfeld**

Claims 1-14 and 16-23 recite a system and method that determine an amount of quality achieved above a compliance level to an acceptable level necessary to establish a presence in a piconet network, the acceptable level being configurable by a user of a wireless piconet device; and provides for an indication of a quality above an acceptable level. The issue the Board needs to

decide is whether, as the Examiner contends, claims 1-14 and 16-23 are obvious over U.S. Pat. No. 6,490,439 to Croft *et al.* (“Croft”) in view of U.S. Pat. No. 6,127,936 to Gendel *et al.* (“Gendel”) and further in view of U.S. Patent No. 5,711,004 to Blasiak *et al.* (“Blasiak”) and U.S. Patent No. 6,311,982 to Lebensfeld *et al.* (“Lebensfeld”).

The Applicants showed in their opening brief that the claims are not obvious over the Examiner’s hypothetical combination. The Applicants address here the points in the Examiner’s Answer.

Croft discloses a lighted antenna that can be used to provide a visual indication that conveys information to a user about the strength of the incoming signals, or whether a receiver is transmitting or receiving. See Abstract, col. 8, line 57 to col. 9, line 2; and col. 9, line 61 to col. 10, line 3. The Examiner acknowledges (Answer pp. 3-4) that Croft does not disclose or teach, *inter alia*, determining an amount of quality achieved above a compliance level to an acceptable level necessary to establish a presence in a piconet network; and providing for an indication of a quality above an acceptable level. The Examiner, however, relies on Gendel to disclose these limitations.

Gendel appears to disclose a system and method of providing a visual and/or audio indication of a magnitude of received signal strength for a wireless communications system (See Abstract). Depending on the magnitude of the signal strength, an LED is flashed a certain number of times in quick succession to indicate that magnitude (See col. 4, lines 54-56).

The Examiner argues (Answer, p. 4) that since the LED in Grendel will flash only if there is a valid reception (even if very weak), it necessarily shows an amount of quality achieved above a compliance level to an acceptable level necessary to establish a presence in a network. For example, if the minimum level for a valid reception is -95 dBm, Grendel will disclose the strength of the signal above -95 dBm.

The Examiner, however, incorrectly assumes that the minimum level for a valid reception is an acceptable level within the meaning of claims 1-

14 and 16-23. In fact, the minimum level in Grendel appears to be equivalent to the minimum link quality threshold as used in the present invention. E.g., p. 8, lines 5-31 – p. 9, lines 1-13; figs. 3A and 3B. The purpose of the present invention is that even though there is a piconet connection, the connection may not be acceptable, resulting in low data transfer rates and degraded signal quality. Gendel does not allow a determination of an acceptable level of signal strength above the minimum required for a valid reception; it simply shows the strength of a signal above the bare minimum.

Thus, neither Gendel nor Croft discloses or suggests determination of an “acceptable [link quality] level necessary to establish a presence in a piconet network” (Claim 1), as recited by claims 1-14 and 16-23. Likewise, neither Gendel nor Croft discloses or suggests a system and method that determines a link “quality achieved beyond that of an acceptable level necessary to establish a presence in a piconet network, said acceptable level being configurable by a user of said wireless piconet device” (Claim 1), and that “activates [a] variable user link acceptable quality indicator” based not on the total amount of link quality but rather “on a quality of [a] condition above [the] acceptable level” (Claim 1) necessary to establish a presence in a piconet network, as also recited by claims 1-14 and 16-23.

The Examiner acknowledges (Answer, p. 5) that the assumed combination of Gendel and Croft fails to disclose or suggest the acceptable level being configurable by a user of the wireless piconet device. The Examiner relies on Blasiak and Lebensfeld to argue that it is a common practice for a user to configure an acceptable level in a wireless piconet device. Blasiak and Lebensfeld, however, fail to disclose or suggest that this is a common practice.

Blasiak appears to disclose use of a “signal quality threshold” that can be set to various thresholds (depending upon the type of data being transmitted) to determine a point at which hand-offs are forced (see col. 5, lines 27-30). Thus, Blasiak’s invention is unrelated to a system and method of providing any type of indication of a quality of a network. It is also unrelated to the particular issues surrounding piconets.

Moreover, modification of Croft, the primary reference allegedly being modified by the Examiner, would result in Croft using a “signal quality threshold” that can be set to various thresholds depending upon the type of data being transmitted as a determination of a point at which hand-offs are forced. Croft’s invention, however, is directed toward a lighted antenna used to provide a visual indication of a wireless signal to a user. Croft’s invention is completely unrelated to hand-offs. Thus, modification of Croft with Blasiak’s invention is nonsensical and a completely unobvious modification of Croft.

The two references in Lebensfeld that the Examiner relies on to argue that it is a common practice for a user to configure an acceptable level in a wireless piconet device do not support the Examiner’s position. Lebensfeld’s fig. 5 is a circuit diagram of a receiver used to play the disclosed game. Lebensfeld at col. 10, lines 46-65 simply discloses a manually adjustable threshold of detected signal strength as a determiner of when to output different audio messages. Lebensfeld, however, relies on analog communications between a transmitter and receiver (see fig. 5). Thus, Lebensfeld’s invention fails to disclose or suggest application to digital networks, much less to the claimed piconet. Modification of Croft (which relies on digital communications) with an analog signal strength determiner from Lebensfeld is nonsensical since it provides no functionality to Croft.

Thus, the Examiner takes Blasiak’s disclosure and Lebensfeld’s disclosure completely out of context. Taking these disclosures within context fails to disclose or suggest application to the unique problems associated with piconets, much less provide for any type of indication of a quality above an acceptable level, as recited by claims 1-14 and 16-23.

In sum, Croft, in view of Gendel and further in view of Blasiak and Lebensfeld, still fails to disclose or suggest a system and method that determines an amount of “quality achieved beyond that of an acceptable level necessary to establish a presence in a piconet network, said acceptable level being configurable by a user of said wireless piconet device” (Claim 1), and providing

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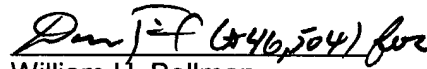
for an indication of a quality above an acceptable level, as recited by claims 1-14 and 16-23.

For at least all the above reasons, and the reasons set forth in the Applicants' appeal brief, claims 1-14 and 16-23 are patentable over the prior art of record. It is therefore respectfully requested that the rejection of these claims under 35 U.S.C. § 103(a) is improper and should be reversed.

**CONCLUSION**

For all the reasons set forth above and in the Applicants' appeal brief, the rejections of claims 1-14 and 16-23 are improper and should be reversed. The Applicants therefore respectfully requests that this Appeal be granted and that the rejections of the claims be reversed.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read "Dan J. F. (36,457) for".

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